

REMARKS / DISCUSSION OF ISSUES

Claims 1, 3-13 and 15-16 are pending in the application. Claims 1, 15 and 16 are the independent claims.

Unless indicated to the contrary, claims are amended for non-statutory reasons, such as to delete European-style phraseology and claim features required in European/International practice. No new matter is added.

Allowable Subject Matter

Applicants gratefully acknowledge the indication of allowability of the subject matter of claims 2, 3 and 14. New claims 15 and 16 present the subject matter of claims 2 and 14 in independent form. Claims 3, 15 and 16 are thus in condition for allowance.

Claim Objections

The objections to the claims are gratefully acknowledged and addressed. Most suggested amendments were made. In some instances, however, Applicants provided language more suitable to capture the subject matter of the claims. Nonetheless, these objections are believed to be moot.

Rejections under 35 U.S.C. § 103

Claims 1 and 4-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Pong, et al.* (US Patent 7,178,971) and *Nalbant* (US Patent 5,615,093). For at least the reasons set forth herein, Applicants respectfully submit that this rejection is improper and should be withdrawn.

As stated in MPEP § 2143, in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Moreover, under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. While the sequence of these questions might be reordered in any particular case, the factors continue to define the inquiry that controls. If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid or unpatentable under § 103. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727; 82 U.S.P.Q.2D 1385 (2007), citing, in part *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

However, the Court in *KSR* continued: "A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U.S., at 36, 86 S. Ct. 684, 15 L. Ed. 2d 545 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "'guard against slipping into the use of hindsight'" (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (CA6 1964)))." Moreover, if there is no suggestion to combine the teachings of the applied art, other than the use of Applicants' invention as a template for its own reconstruction, a rejection for obviousness is improper. *Ex parte Crawford, et al.* Appeal 20062429, May 30, 2007.

While Applicants in no way concede the propriety of the combination of references, the rejection is nonetheless improper at least because the applied art fails to disclose at least one feature of claim 1.

Claim 1 is drawn to a resonant power LED control that includes:

a single resonant converter for the simultaneous, independent brightness and color control of two LEDs or two groups of LEDs, wherein the converter comprises a

half or full bridge DC/AC converter with a control unit, a resonant capacitor, and a transformer.

The control unit 21 in an embodiment is shown in Fig. 1. The Office Action directs Applicants to column 8, lines 50-53; and column 8, line 63 through column 9, line 4 of *Pong, et al.* for the alleged disclosure of the control unit. In the interest of completeness, Applicants reproduce column 8, line 50 through column 9, line 4 of *Pong, et al.* presently:

Operation of the embodiment of the invention in FIG. 15 is described next. Primary winding 305, possibly driven by half bridge circuits or full bridge circuits like most forward converters, receives a series of voltage pulses resulting in energizing secondary windings 310 and 315. Current from secondary windings 310 and 315 flows to inductor 330 via either LED 320 or LED 325 and then to LED 335. The current through the each of LEDs 320, 325 and 335 is modulated by varying the ratio of secondary and primary windings, switching frequency, duty cycle, the input voltage, and the value of inductor 330. Thus, suitably adjusting the current through an LED results in producing a desired brightness and in combination with the color produced by other LEDs generates a desired color.

Although FIGS. 13-15 include an alternating power source, this is not intended to indicate sinusoidal alternating power sources only. Indeed square waves or even irregular waveforms capable of driving the secondary windings are intended to be included by the illustrative depiction of an alternating power source. The alternating power source includes one or more of a switching forward power converter, a transformer, a switching flyback power converter, a switching bridge power converter, and the like.

Applicants respectfully submit that nowhere in the portion of *Pong, et al.* relied upon in the Office Action for the alleged disclosure of the control unit featured in claim 1 is there even a mention of such a unit. Rather, there is a description of the driving of primary windings and the energizing of secondary windings; and the current flow to LEDs. The reference also describes here the modulation of the current by variation of certain parameters to adjust the brightness and color output. Furthermore, non-sinusoidal waveforms may be applied and power converters useful as alternating power sources. However, there is no disclosure of at least the claimed control unit.

For at least the reasons set forth above, Applicants respectfully submit that the

applied art fails to disclose at least one feature of claim 1 for which it is relied. Therefore, a *prima facie* case of obviousness has not been established as to claim 1, and claim 1 is thus patentable over the applied art. Moreover, claims 4-13, which depend from claim 1 directly or indirectly, are patentable over the applied art for at least the same reasons and in view of their additionally recited subject matter.

Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
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